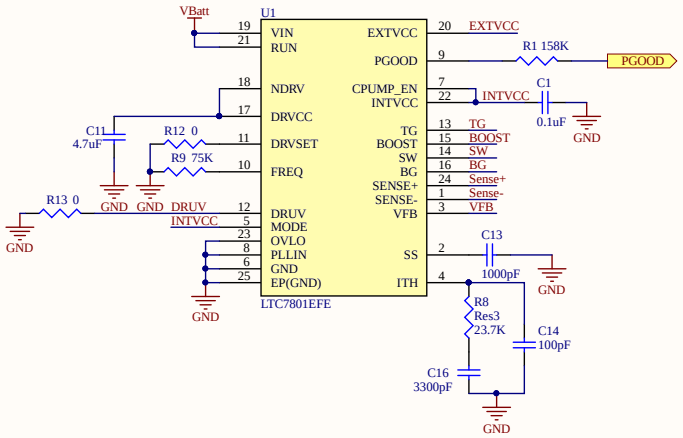
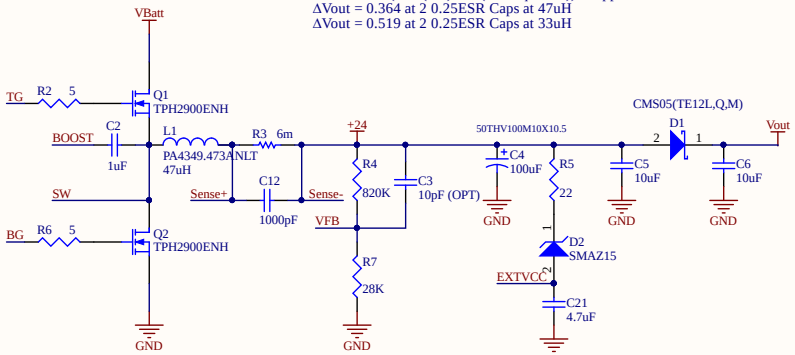
24V Buck Converter

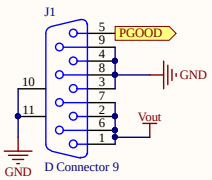


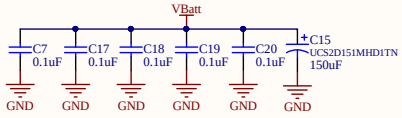
60-120Vin converted to 24Vout,3A

350KHz Switching with Freq=GND
535KHz Switching with Freq=INTVCC or 75KOhm to GND

ΔIL = (24/(Freq*L))(1-24/100) = 1.033A
ΔIL= 1.033A at 33uH
ΔIL= 0.725A at 47uH
ΔVout = ΔIL(ESR(out) + 1/(8*Freq*Cout)) Ripple ~= ESR
ΔVout = 0.364 at 2 0.25ESR Caps at 47uH
ΔVout = 0.519 at 2 0.25ESR Caps at 33uH







Title	*FEV-60_12V_Module.SchDoc*		
Revision: A0	Number:*	Team Skytanic	Senior Design 2019/2020
Date: 4/28/2020		Sheet* of *	
File: D:\altium\SeniorDesign\Hardware\FEV-60_12V_Module\FEV-60_12V_Module.SchDoc			